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# (12) UK Patent Application (19) GB (11) 2 227 010 (13) A

(43) Date of A publication 18.07.1990

(21) Application No 8900873.4

(22) Date of filing 16.01.1989

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(51) INT CL<sup>5</sup>  
**A47J 47/12, B65G 59/02**

(52) UK CL (Edition K)  
**B8U UGA**  
**U1S S1093**

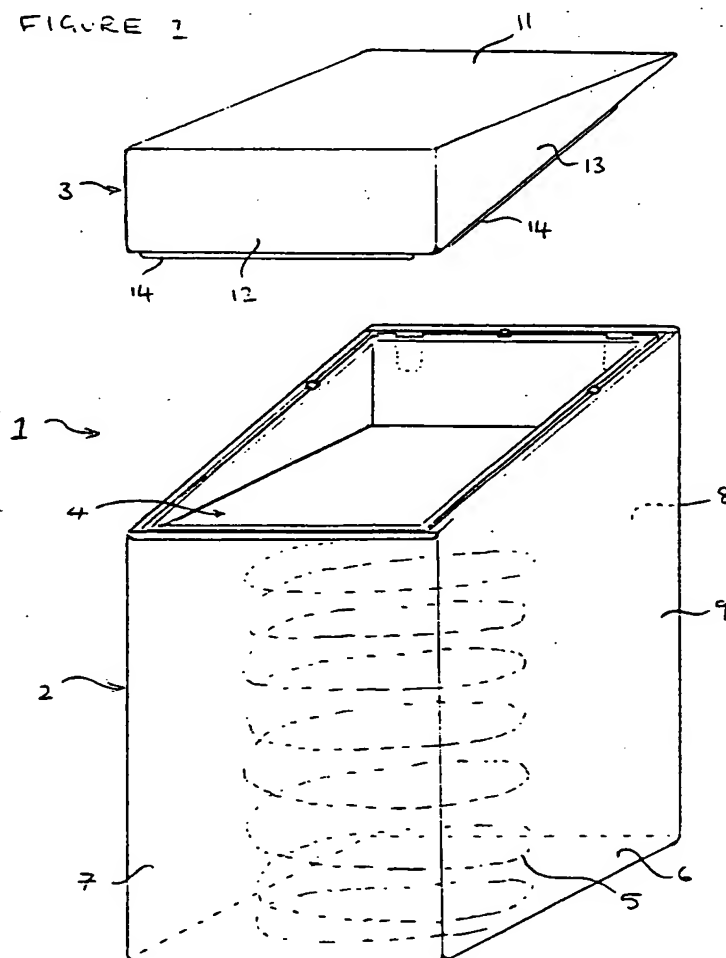
(56) Documents cited  
**GB 0877419 A GB 0805069 A US 4500145 A**

(58) Field of search  
**UK CL (Edition J) B8P PG3D, B8U UEB UF UGA**  
**INT CL<sup>4</sup> A47J, B65D, B65G**

(54) A storage container, e.g. for bread

(57) A storage container in the form of a bread bin comprises a housing 9 having an open upper end and a lid 3 mountable upon the open upper end of the housing. The housing contains a platform 4 which is spring-biased towards the upper end of the housing so that when a sliced loaf of bread is positioned on the platform the uppermost slice in the loaf is presented at the open upper end of the housing.

FIGURE 1



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FIGURE 2

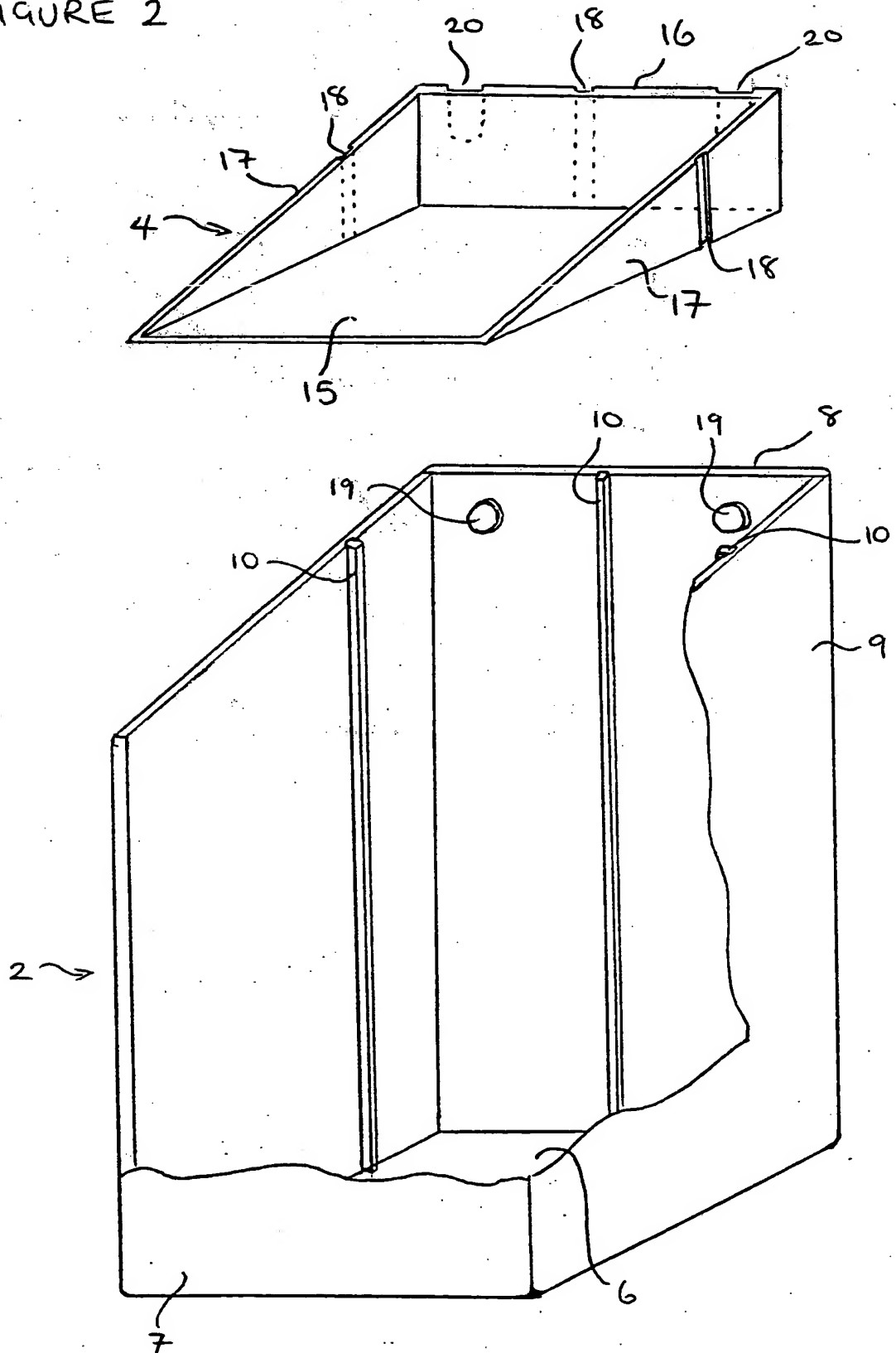
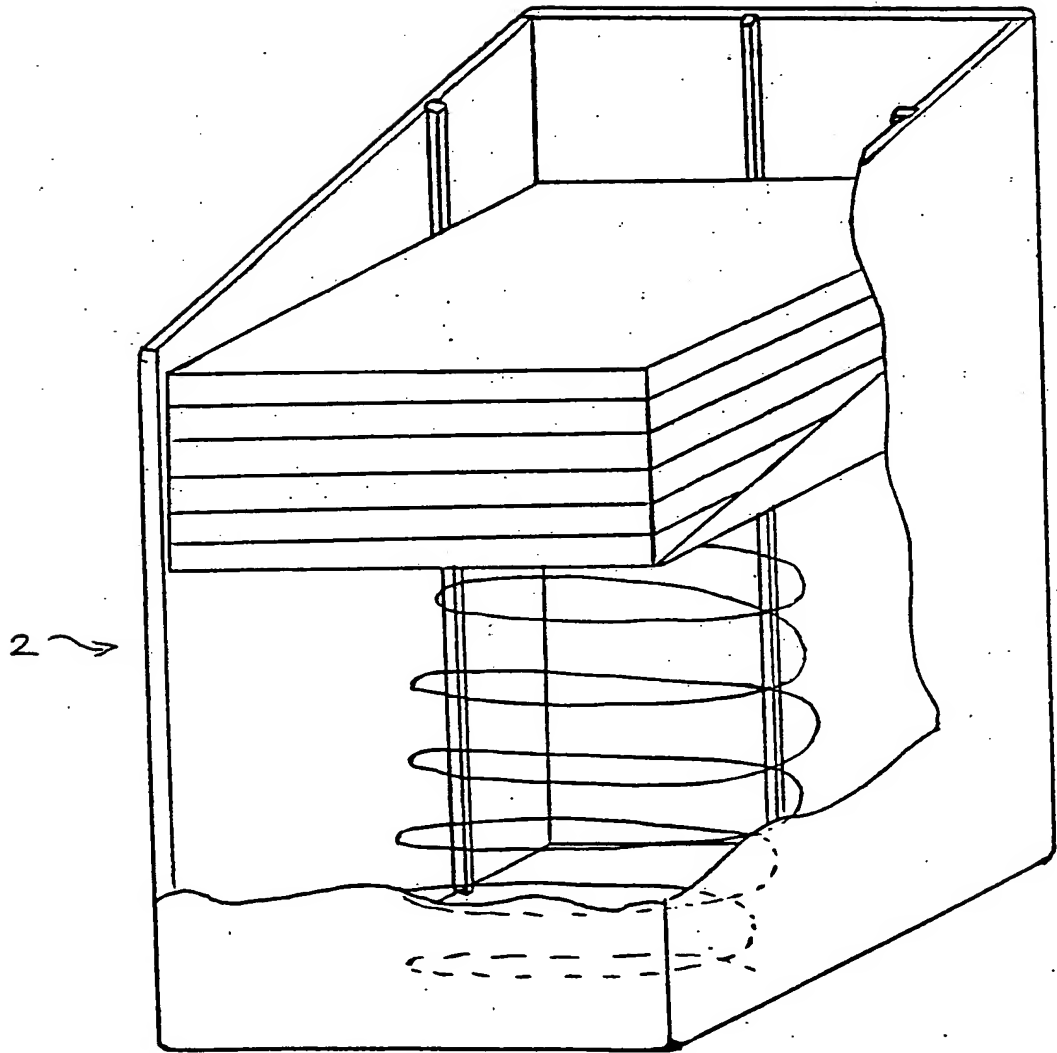


FIGURE 3







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## DESCRIPTION OF INVENTION

A storage container;

THE PRESENT INVENTION relates to a storage container and more particularly to a storage container for storing and dispensing a sliced loaf of bread.

In the United Kingdom over 80% of all the loaves of bread sold are in the form of pre-sliced loaves of bread, i.e. loaves which are cut into slices prior to being packaged and sold. Sliced loaves tend to be of a substantially standard size and weight, measuring approximately 115 mm x 130 mm x 250 mm in length and having a mass of approximately 800 grams.

Sliced loaves are usually sold in plastic bags and as the loaf is used the required number of slices are moved from the bag and the bag is "resealed" in order to try and keep the remaining bread fresh. However, for safety reasons some of the plastics bags in which the loaves are sold are provided with holes which allow the ingress of air and thus the loaf will not stay fresh for very long. The loaf of bread, in its plastic bag, is often kept in a bread bin. Removing the loaf from the bread bin and opening and "resealing" the bag whenever a slice of bread is required is an inconvenience.

The present invention seeks to provide a container for storing and dispensing a loaf of bread which will keep the bread fresh for a relatively long period of time and which will be more convenient than the above-mentioned practices.

According to the present invention there is provided a storage container for storing and dispensing a loaf of bread, said container comprising a housing having an open upper end; a lid or cover mountable upon the upper end of the housing to form a substantially air-tight closure; a platform received within the housing; and means biasing the platform towards the upper end of the housing.

Preferably the housing is a generally rectangular, upright component, the platform being slidable vertically within the housing, there being cooperating means on the housing and the platform to guide the vertical movement of the platform within the housing.

The guide means may comprise vertically extending guides located on the internal surface of the housing and corresponding vertically extending recesses in the platform for receiving the guides.

The guide may be individual components formed of a low friction material, the guides being mountable upon the interior of the housing.

The guides may have a dovetail section and the interior of the housing may be provided with corresponding dovetail shaped recesses into which the guides are slidably mounted.

Alternatively the guide means may comprise rolling elements provided on the platform and recesses in the internal surface of the housing for receiving the rolling elements.

Preferably wherein the housing is provided with one or more stops adjacent its upper end which project into the interior of the housing and abut part of the platform when the platform is adjacent the upper end of the housing to retain the platform within the housing.

Conveniently the stops are removably mounted upon the housing to allow the container to be disassembled for cleaning.

Advantageously the lid or cover has a depending skirt element receivable within the upper end of the housing to facilitate the location of the lid or cover upon the upper end of the housing.

The lid or cover may have a resilient sealing member located around at least part of its periphery, the resilient sealing member being designed to engage the upper end of the housing when the lid is mounted thereon so as to provide a substantially air-tight closure.

The biasing means may comprise a coil spring.

Preferably the spring stiffness is selected such that the uppermost slices of bread in a stack of slices received on the platform are always located adjacent the open, upper end of the housing, regardless of the number of slices in the stack.

Conveniently at least part of the housing is non-opaque such that the level of the platform within the housing is visible through the non-opaque part of the housing.

Advantageously the housing is formed as an injection moulded plastics component.

Preferably the housing comprises a base, an upstanding front wall, an upstanding rear wall of greater height than the front wall and opposed side walls, the side walls each having an inclined upper edge extending from the upper edge of the front wall to the upper edge of the rear wall and the lid or cover comprises a planar upper surface, a depending front wall and two opposed depending side walls, each side

wall having an inclined lower edge which extend between the lower edge of the front wall and the rear edge of the planar upper surface.

Preferably the platform comprises a planar horizontal base, an upstanding rear wall and two opposed upstanding side walls which are inclined and extend from the front edge of the base to the upper edge of the rear wall.

In order that the present invention may be more readily understood and so that further features thereof may be appreciated, the invention will now be described by way of example, with reference to the accompanying drawings, in which:

FIGURE 1 is a perspective view of a storage container in accordance with the present invention;

FIGURE 2 is partly cut away exploded view of two parts of the container of Figure 1; and

FIGURE 3 is a partly cut away perspective view of the container in use.

With reference to the drawings, the main components of a storage container 1 are a housing 2 having a lid or cover 3 at its upper end and a platform 4 received within the housing 2 for vertical movement therein, the platform 4 being biased towards the upper end of the housing 2 by a spring 5 (shown in dotted lines in Figure 1).

Looking at each of the main components in more detail, the housing 2 is a generally rectangular, upright housing having a solid base 6, an upstanding front wall 7, an upstanding rear wall 8 which is taller than the front wall 7 and two opposed side walls 9, the side walls 9 each having an inclined upper edge which extends from the top edge of

the front wall 7 to the top edge of the rear wall 8. The housing has an open upper end. The joints between the upstanding walls are all rounded. Whilst the housing has been illustrated as comprising four separate upstanding walls, it is envisaged that the housing will be injection moulded as a single component.

The rear wall 8 and the side walls 9 of the housing are each provided with an inwardly directed, rectangular sectioned, vertically extending guide 10, which serves to guide the vertical movement of the platform 4 within the housing, as will be explained in greater detail hereinafter. The guide 10 on the rear wall 8 is located centrally thereon, whilst the guides 10 provided on the opposed side walls 9 are disposed at a position relatively close to the rear wall 8. The guides 10 extend over the full depth of the housing 2.

The lid or cover 3 has a planar upper surface 11 and three depending walls, there being a rectangular front wall 12 and two opposed, generally triangular side walls 13 which extend between the lower edge of the front wall 12 and the rear edge of the planar upper surface 11 of the lid. Along their lower edges, the depending front wall 12 and side walls 13 are each provided with a downwardly projecting skirt element 14 designed to be received snugly within the front and side walls of the housing 2. The skirt elements 14 serve to facilitate the correct location of the lid or cover 3 upon the housing 2. It will be appreciated, of course, that the lid or cover 3 has overall dimensions corresponding to the overall dimensions of the housing 2, with the side walls 13 of the lid being inclined at the same angle as the side walls 9 of the housing. In order to provide a substantially air-tight closure when the lid 3 is mounted upon the upper end of the housing 2, a resilient sealing member, such as a rubber strip, may be provided either on the skirt element 14 or on the lower edges of the

lid 3 so as to engage the internal surface or the upper edge of the walls of the housing 2.

The platform 4 is illustrated most clearly in Figure 2 of the drawings and comprises a planar, horizontal base 15 having an upstanding rear wall 16 and opposed side walls 17 which incline from the front edge of the base 15 to the upper edge of the rear wall 16, this angle of inclination being the same as the angle of inclination of the inclined upper edges of the side walls 9 of the housing 2. Each wall of the platform 4 defines a vertically extending, rectangular sectioned guideway 18 dimensioned to receive a respective rectangular sectioned guide 10 provided on the side wall and rear walls of the housing 2. Thus, there is a centrally located guideway 18 in the rear wall 16 of the platform and a guideway 18 in each of the side walls 17 at a position relatively close to the rear wall 16.

The spring 5 may comprise a simple coil spring.

In order to assemble the storage container, the spring 5 is placed inside the housing 2 upon the base 6 and the platform 4 is then located in the housing with the guides 10 received in the guideways 18 so that the platform 4 is free to slide vertically within the housing 2. A pair of removable stops 19 are provided in the rear wall 8 of the housing 2 adjacent the upper end thereof. The stops 19 are in the form of circular sectioned lugs which project into the interior of the housing 2 from the rear wall 8. The rear wall 16 of the platform 4 is provided with a pair of recesses 20 at positions which are aligned with the stops 19 when the platform is received in the housing 2, the recesses 20 being dimensioned to receive the stops 19 and to prevent the platform 4 from coming out of the open top of the housing 2. Thus, once the platform 4 has been inserted into the housing, the stops 19 are located in position such that the platform is retained within the housing.

When the platform 4 has been located within the housing it will be appreciated that the guides 10 serve as runners which guide the vertical movement of the platform within the housing. It is desirable that friction between the platform and the guides 10 be reduced to a minimum. To this end, it is envisaged that the guides 10 may be formed as separate components, rather than integrally with the housing, from a material having a low coefficient of friction, such as polytetrafluoroethylene, as sold under the trade name Teflon. The guides 10 may be designed to be of dovetail configuration along one edge with the side walls 9 and rear wall 8 of the housing being provided with a corresponding dovetail recess into which the guides 10 may be slidably mounted. As a further alternative the platform 4 may be provided with small wheels, rollers or the like which serve as runners, with the side walls 9 and the rear wall 8 of the housing being provided with appropriately dimensioned recesses in which the wheels, rollers or the like will run. The wheels, rollers or the like will then guide the movement of the platform within the housing.

In use a sliced loaf of bread is removed from the plastic bag in which it is sold and is positioned upon the base 15 of the platform 4 causing the platform to move downwardly in the housing 2. The stiffness of the spring 5 is selected such that the weight of a loaf of bread will fully compress the spring thereby lowering the platform 4 to a position close to the bottom of the housing 2. As slices of bread are removed from the top of the stack of slices, at the open upper end of the housing, the spring 5 causes the platform to rise up within the housing. The spring stiffness is selected such that the uppermost slices of bread in a stack of slices on the platform 4 are always located adjacent the open, upper end of the housing 2, regardless of the actual number of slices in the stack. When the lid or cover 3 is positioned upon the upper end of the housing a substantially air-tight seal is formed and

since there are no other openings in the walls or base of the housing, the bread will remain fresh for a relatively long period of time.

The front wall 7 of the housing may be provided with a vertically extending transparent window so that the level of the platform 4 within the housing and thus the amount of bread left in the housing can be seen at any time.

When it is required to clean the container the stops 19 may be removed from the rear wall 8 thereby allowing the platform 4 and the spring 5 to be removed from the housing so that the housing, platform and lid may be washed.

It will be appreciated that the design of the storage container may vary from the above-described embodiment without departing from the scope of the present invention.



CLAIMS:

1. A storage container for storing and dispensing a loaf of bread, said container comprising a housing having an open upper end; a lid or cover mountable upon the upper end of the housing to form a substantially air-tight closure; a platform received within the housing; and means biasing the platform towards the upper end of the housing.
2. A storage container according to Claim 1 wherein the housing is a generally rectangular, upright component, the platform being slidable vertically within the housing, there being cooperating means on the housing and the platform to guide the vertical movement of the platform within the housing.
3. A storage container according to Claim 2 wherein the guide means comprise vertically extending guides located on the internal surface of the housing and corresponding vertically extending recesses in the platform for receiving the guides.
4. A storage container according to Claim 3 wherein the guide are individual components formed of a low friction material, the guides being mountable upon the interior of the housing.
5. A storage container according to Claim 4 wherein the guides have a dovetail section and the interior of the housing is provided with corresponding dovetail shaped recesses into which the guides are slidably mounted.
6. A storage container according to Claim 1 or Claim 2 wherein the guide means comprise rolling elements provided on the platform and recesses in the internal surface of the housing for receiving the rolling elements.

7. A storage container according to any one of the preceding claims wherein the housing is provided with one or more stops adjacent its upper end which project into the interior of the housing and abut part of the platform when the platform is adjacent the upper end of the housing to retain the platform within the housing.
8. A storage container according to Claim 7 wherein the stops are removably mounted upon the housing to allow the container to be disassembled for cleaning.
9. A storage container according to any one of the preceding claims, wherein the lid or cover has a depending skirt element receivable within the upper end of the housing to facilitate the location of the lid or cover upon the upper end of the housing.
10. A storage container according to any one of the preceding claims wherein the lid or cover has a resilient sealing member located around at least part of its periphery, the resilient sealing member being designed to engage the upper end of the housing when the lid is mounted thereon so as to provide a substantially air-tight closure.
11. A storage container according to any one of the preceding claims wherein the biasing means comprise a coil spring.
12. A storage container according to Claim 11 wherein the spring stiffness is selected such that the uppermost slices of bread in a stack of slices received on the platform are always located adjacent the open, upper end of the housing, regardless of the number of slices in the stack.
13. A storage container according to any one of the preceding claims wherein at least part of the housing is non-opaque such that the level of the platform within the

housing is visible through the non-opaque part of the housing.

14. A storage container according to any one of the preceding claims wherein the housing is formed as an injection moulded plastics component.

15. A storage container according to any one of the preceding claims wherein the housing comprises a base, an upstanding front wall, an upstanding rear wall of greater height than the front wall and opposed side walls, the side walls each having an inclined upper edge extending from the upper edge of the front wall to the upper edge of the rear wall and the lid or cover comprises a planar upper surface, a depending front wall and two opposed depending side walls, each side wall having an inclined lower edge which extend between the lower edge of the front wall and the rear edge of the planar upper surface.

16. A storage container according to any one of the preceding claims wherein the platform comprises a planar horizontal base, an upstanding rear wall and two opposed upstanding side walls which are inclined and extend from the front edge of the base to the upper edge of the rear wall.

17. A storage container substantially as herein described with reference to and as shown in the accompanying drawings.

18. Any novel feature or combination of features disclosed.

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